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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,693	02/20/2004	Shigeo Kiso	03500.018040	3687
5514	7590	10/20/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			LE, UYEN CHAU N	
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NEW YORK, NY 10112			PAPER NUMBER	
			2876	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/781,693	<b>Applicant(s)</b> KISO, SHIGEO	
	<b>Examiner</b> Uyen-Chau N. Le	<b>Art Unit</b> 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Election/Restrictions***

1. Applicant's election with traverse of Group I (i.e., claims 1-18) in the reply filed on 26 September 2005 is acknowledged. The traversal is on the ground(s) that "the mark-reading program and the mark-reading apparatus recited by the Group 11 claims are not believed to be subcombinations of the Group I method of producing a substrate with a mark" (p. 1, last paragraph) and "there would not be undue burden in examining the two groups of claims in a single application" (p. 2, first paragraph). This is not found persuasive because claims 1-18 are straightly drawn to a method of producing a substrate with a mark that has no factor (e.g., deformation, changing color, etc. of the substrate) that hinders the reading of the mark being generated; and claims 19-20 are straightly drawn to an apparatus and method for reading the mark that requires specific means and steps for reading the mark. Accordingly, the restriction requirement is still deemed proper.

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***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 13-14 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashimoto (JP 02134747 A).

Re claims 1-8, 13-14 and 15-17: Hashimoto discloses a method of producing a substrate with mark, comprising: a marking step of forming a mark having an information on a surface of a substrate; and a reading step of reading the mark, wherein prior to the reading step, at least a part of the mark is formed in a region of the substrate where a factor that hinders the reading of the mark in the reading step is not generated; wherein in the marking step, the mark is formed in a direction nonparallel (i.e., orthogonal) to the direction of generation of the factor that hinders reading of the mark; wherein the marking step, the mark formed in plurality such that the marking positions of at least two consecutive ones of the marks are offset with respect to each other in a direction

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perpendicular (i.e., orthogonal) to the direction of generation of the factor that hinders reading of the marks; wherein the factor that hinders reading of the mark is deformation of the substrate; wherein the factor that hinders reading the mark is film attachment to the substrate; wherein the factor that hinders reading of the mark is a change in color of the substrate; wherein the factor that hinders reading of the mark is coloring of the substrate (i.e., the pattern is formed and is colored black) ; wherein the marking step, the mark formed while moving the substrate (i.e., while the card 19 is transported); wherein the substrate 19 is a non-light transmissive substrate and is a photovoltaic element substrate; wherein the mark comprises a character, a bar code(i.e., pattern) (see English abstract).

3. Claims 1, 6-8, 10-12, 15 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishida et al (US 5,272,322).

Re claims 1, 6-8, 10-12, 15 and 18: Nishida et al discloses a method of producing a substrate with mark, comprising: a marking step of forming a mark having an information on a surface of a substrate; and a reading step of reading the mark, wherein prior to the reading step, at

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least a part of the mark is formed in a region of the substrate where a factor that hinders the reading of the mark in the reading step is not generated; wherein the factor that hinders reading of the mark is a change in color of the substrate; wherein the factor that hinders reading of the mark is coloring of the substrate; wherein the marking step, the mark formed while moving the substrate; wherein the substrate a continuous member, which is of a roll-to-roll system; wherein the mark comprises a character, a bar code 1a; wherein the mark is formed by printing (figs. 4-10; col. 5, line 30 through col. 9, line 22).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida in view of Liu et al (US

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5,777,310). The teachings of Nishida have been discussed above.

Re claim 9: Nishida has been discussed above, but is silent with respect to a portion of the mark subjected to hindrance to reading due to the factor that hinders reading of the mark is inferred and implemented based on the results of reading of ones of the marks formed preceding and succeeding the formation of the mark subjected to the hindrance to reading.

Liu et al teaches a portion of the mark subjected to hindrance to reading due to the factor that hinders reading of the mark is inferred and implemented based on the results of reading of ones of the marks formed preceding and succeeding the formation of the mark subjected to the hindrance to reading (figs. 1 and 4a-4e; col. 5, lines 22-36).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Liu et al into the system as taught by Nishida et al in order to provide Nishida et al with the ability of successfully and accurately reading codes with factors that hinders the reading process (e.g., damaged codes), wherein incorrect printed codes can be

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corrected/determined readily upon detection, thus providing a more efficient system.

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents to Kondo et al (JP 63108482 A); Gough (US 4857745 A); Roustaei et al (US 6685095 B2); Hayakawa et al (US 6709720 B2) are cited as of interest and illustrate a similar structure to a method of producing substrate with mark, program for reading mark, and apparatus for reading mark.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 571-272-2397. The examiner can normally be reached on First Monday 5:30AM-1:30PM and Tues-Fri 5:30AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Uyen-Chau N. Le  
Examiner  
Art Unit 2876

October 16, 2005